

## BSC 307 Abstract to Concrete Sample Lesson

Title: "The Mystery of Reebop Genetics"	Grade Level: 11-12
Objectives: TSWBAT... <ol style="list-style-type: none"><li>1. Identify Mendel's Laws of genetic transmission.</li><li>2. Identify and describe exceptions to Mendel's Laws in gene transmission.</li></ol>	
Illinois State Learning Standards: ILS Stage J 12 A 3	
Activity Description: <p>After a brief review of Mendel's Laws, students are introduced to the Reebops by the instructor. A few minutes are spent looking at the Reebops' physical characteristics. Students are then given a copy of the activity and envelopes containing chromosomes from both the male and female Reebop. They "mate" the Reebops and then create one offspring. They are then charged with determining which Reebop traits do not follow traditional Mendelian inheritance patterns and what those exceptions are called.</p>	
Assessment Strategies: <p>Assessment will be based on completion of activity, end of class discussion, and end of the week quiz.</p>	
Rationale: <p>Students struggle with the concepts that fall outside of the traditional Mendelian genetics patterns. The Reebops provide a physical, hands-on experience of multiple exceptions. This activity also directly reflects ILS Stage J 12 A 3 as it both examines genotypic and phenotypic displays as well as modeling the genetic outcomes of crossing individuals.</p>	
Resources: <p>Illinois State Board of Education. (1997). <u>Illinois State Learning Standards</u>. [On-line]. Retrieved on August 14, 2008. Available: <a href="http://www.isbe.net/ils/Default.htm">http://www.isbe.net/ils/Default.htm</a>.</p> <p>Soderberg, P. (1991). <i>Reebops: A model "organism" for teaching genetics concepts</i>. [On-line]. Retrieved on August 14, 2008. Available: <a href="http://www.wisc.edu/cbe/assets/docs/pdf/reebops/reebops.pdf">http://www.wisc.edu/cbe/assets/docs/pdf/reebops/reebops.pdf</a></p>	

\* Please attach any and all handouts/worksheets to this lesson plan